

Fig. 1

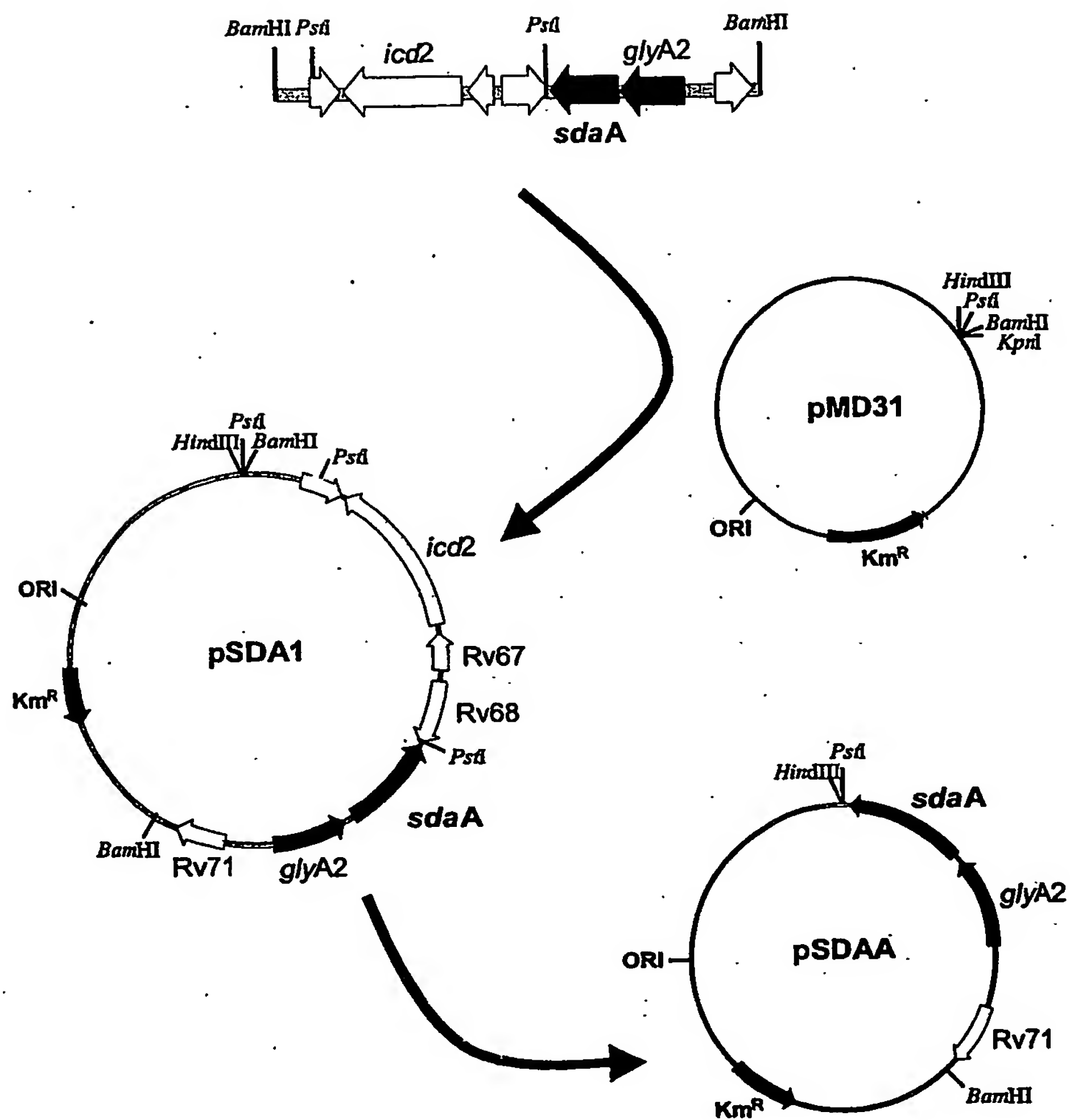
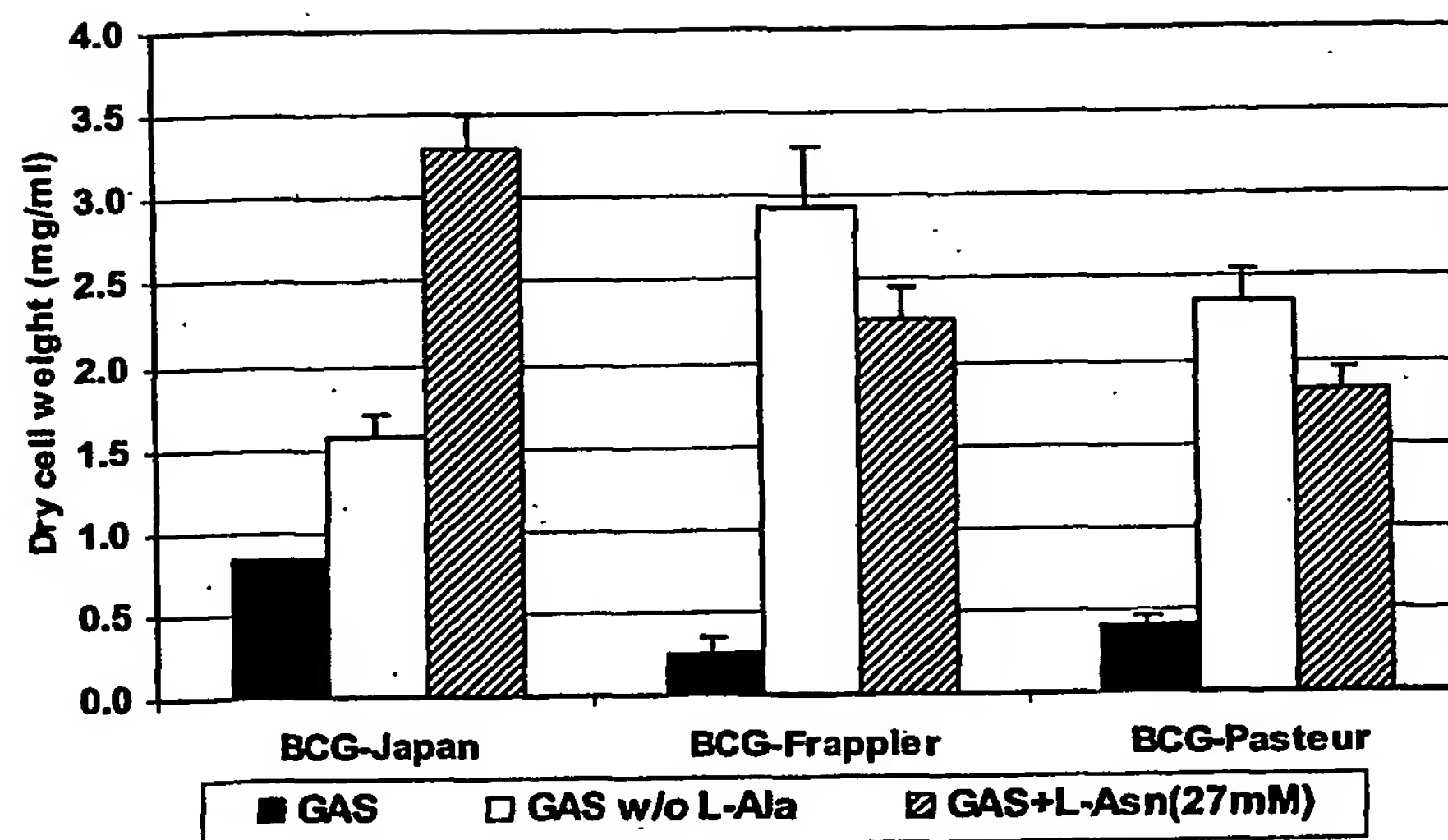
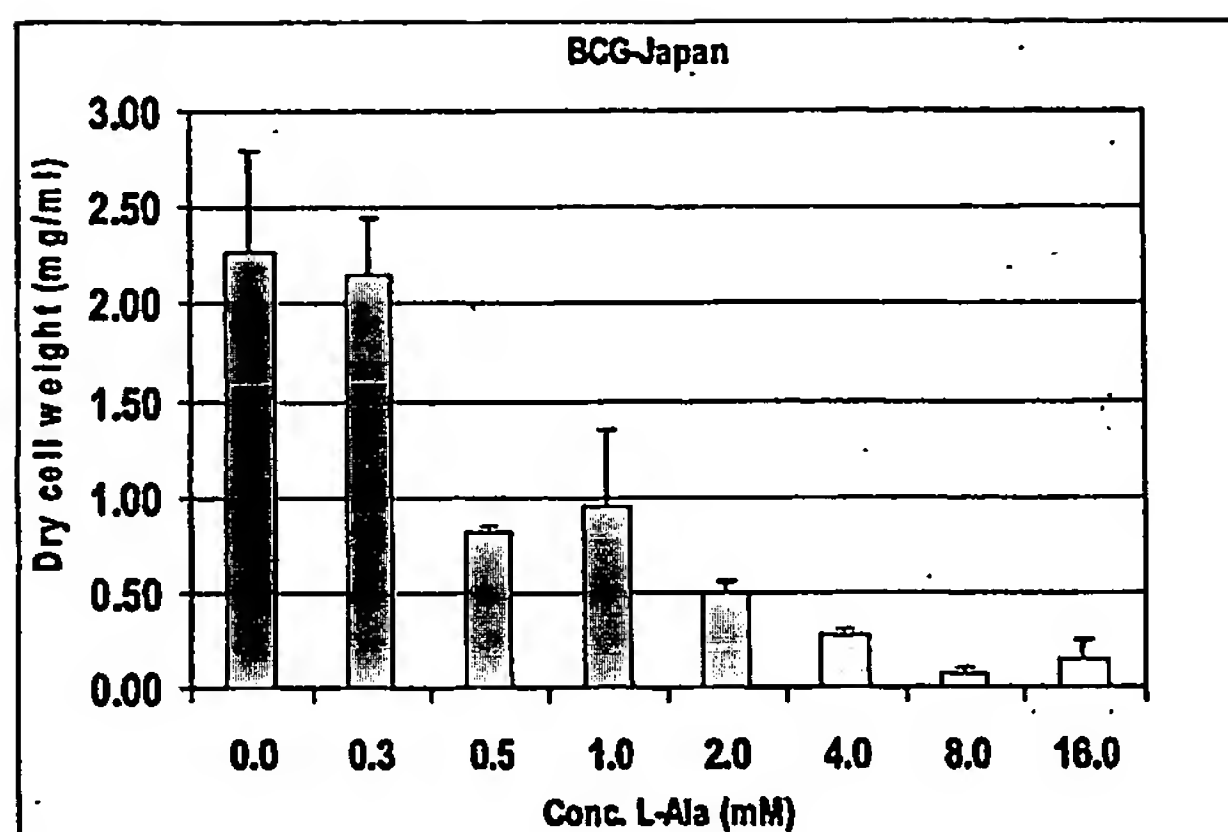


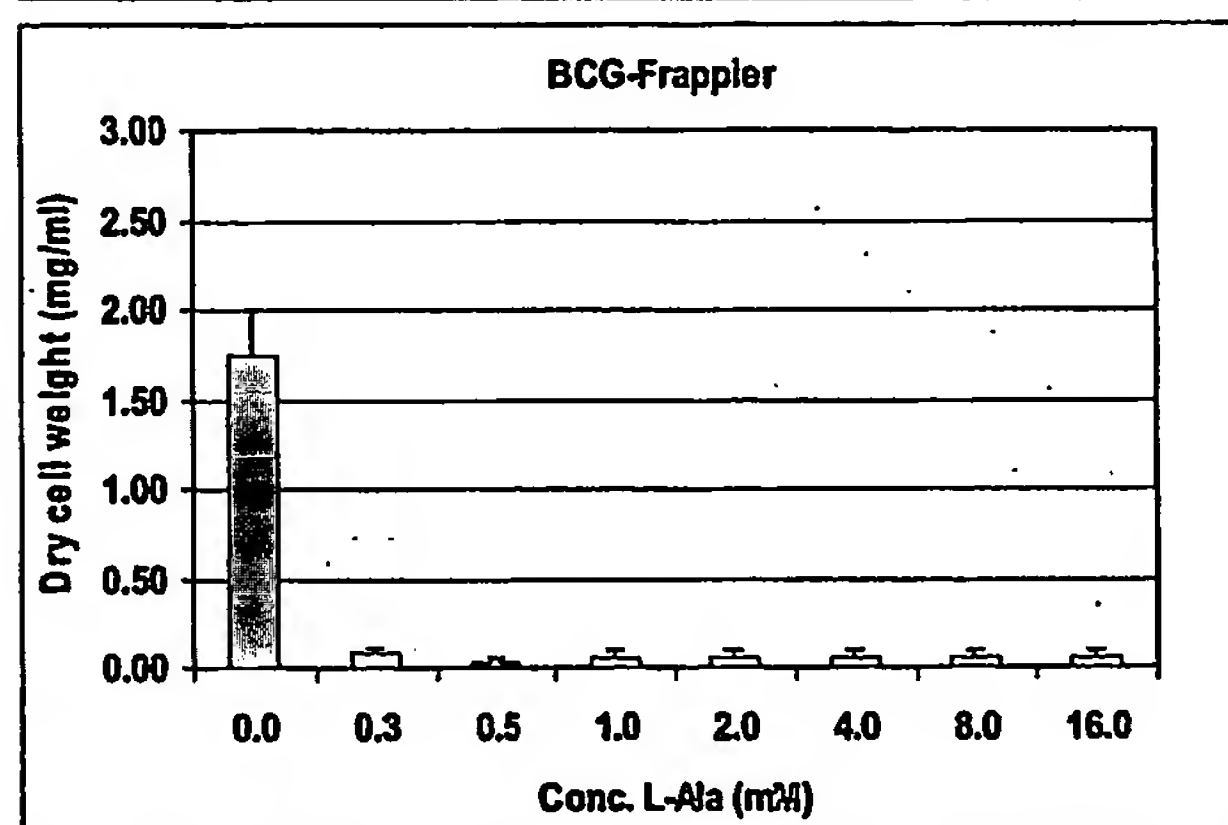
Fig. 2

**Fig. 3**

a)



b)



c)

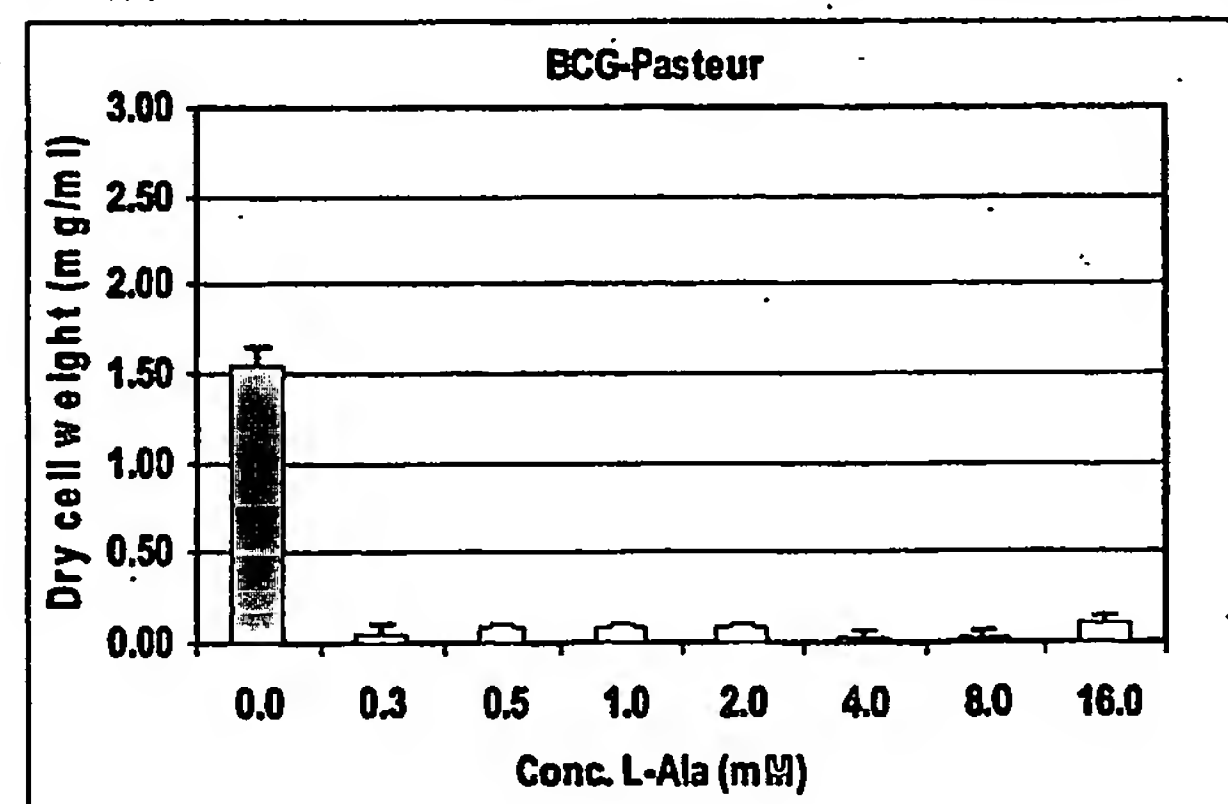
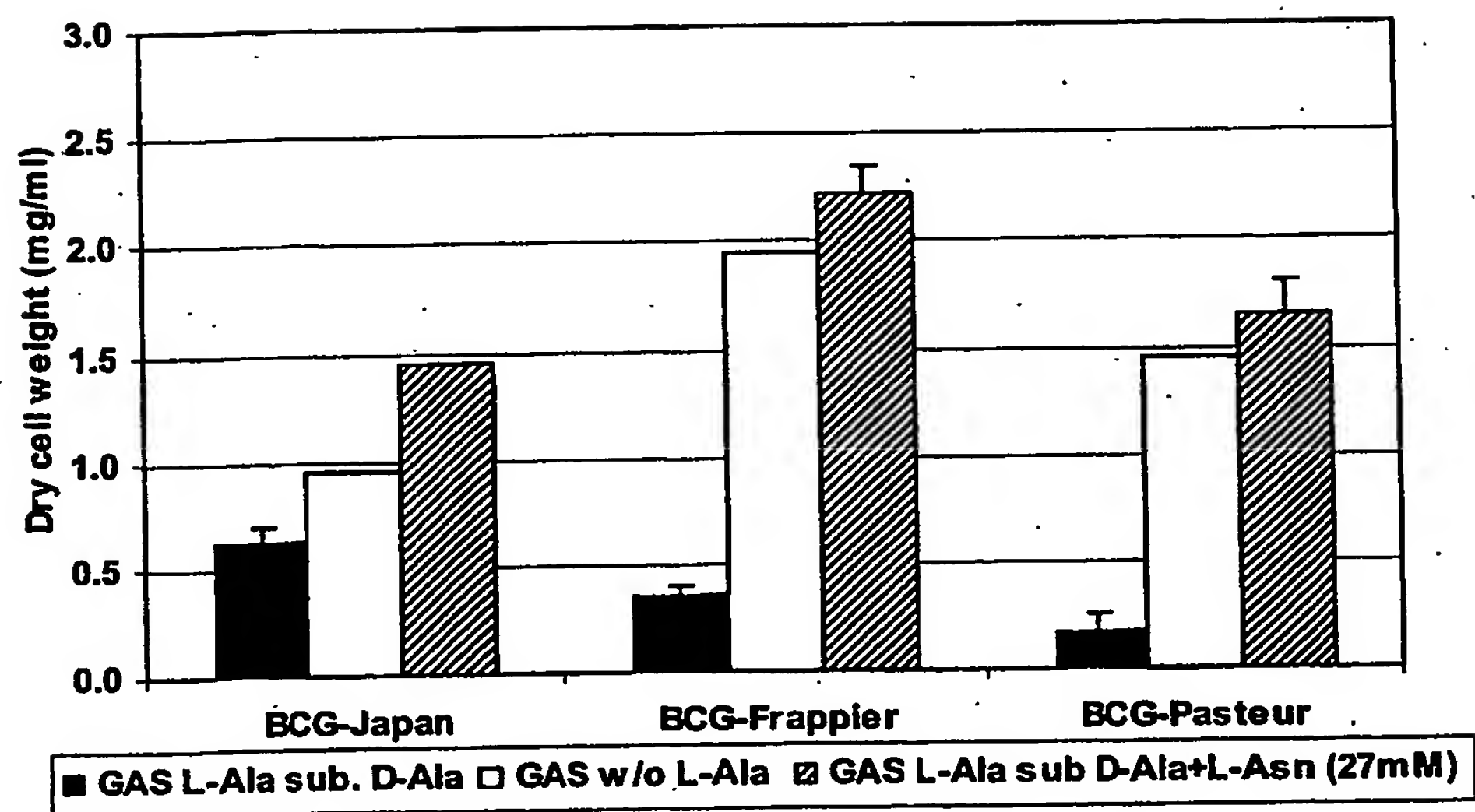


Fig. 4.

**Fig. 5**

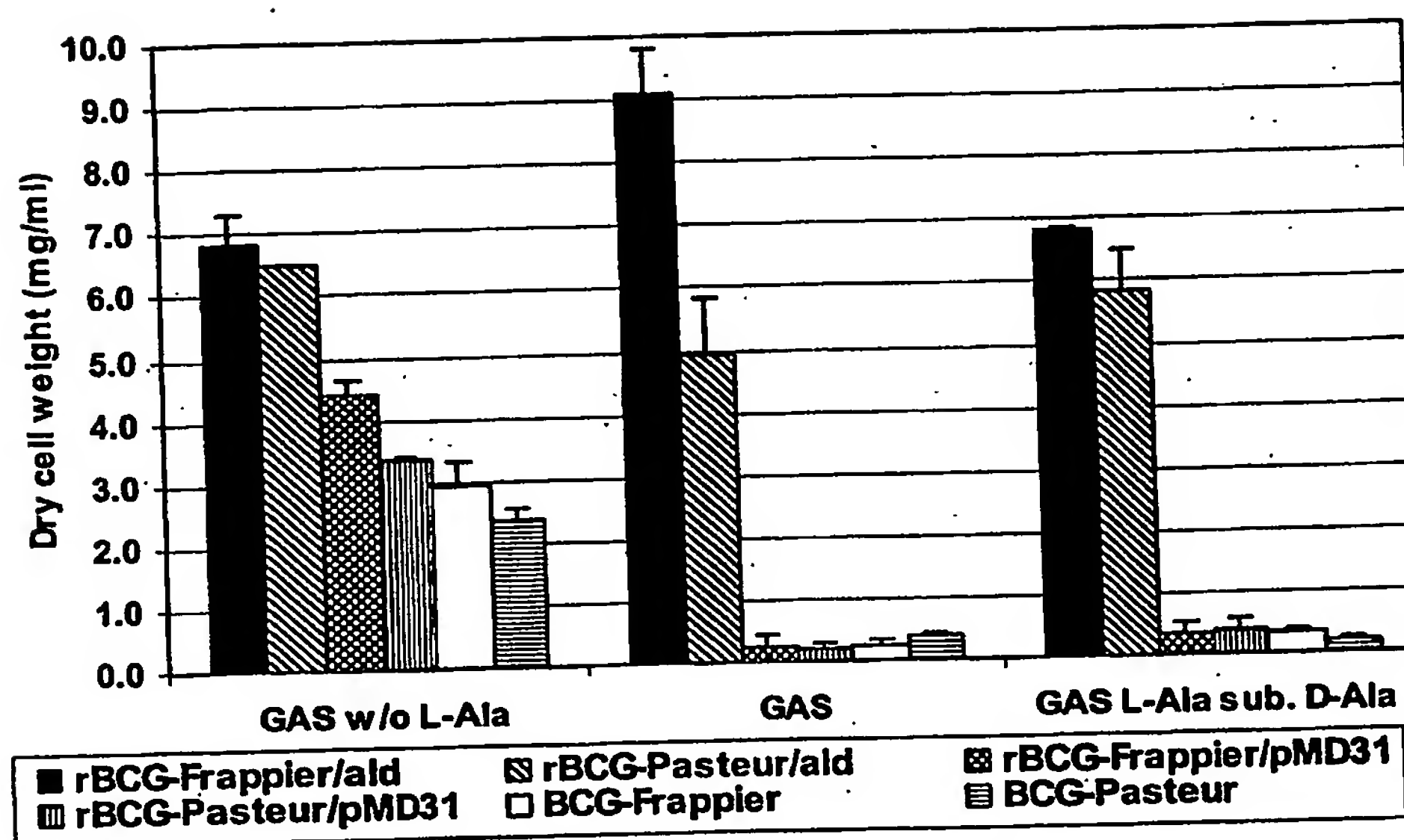
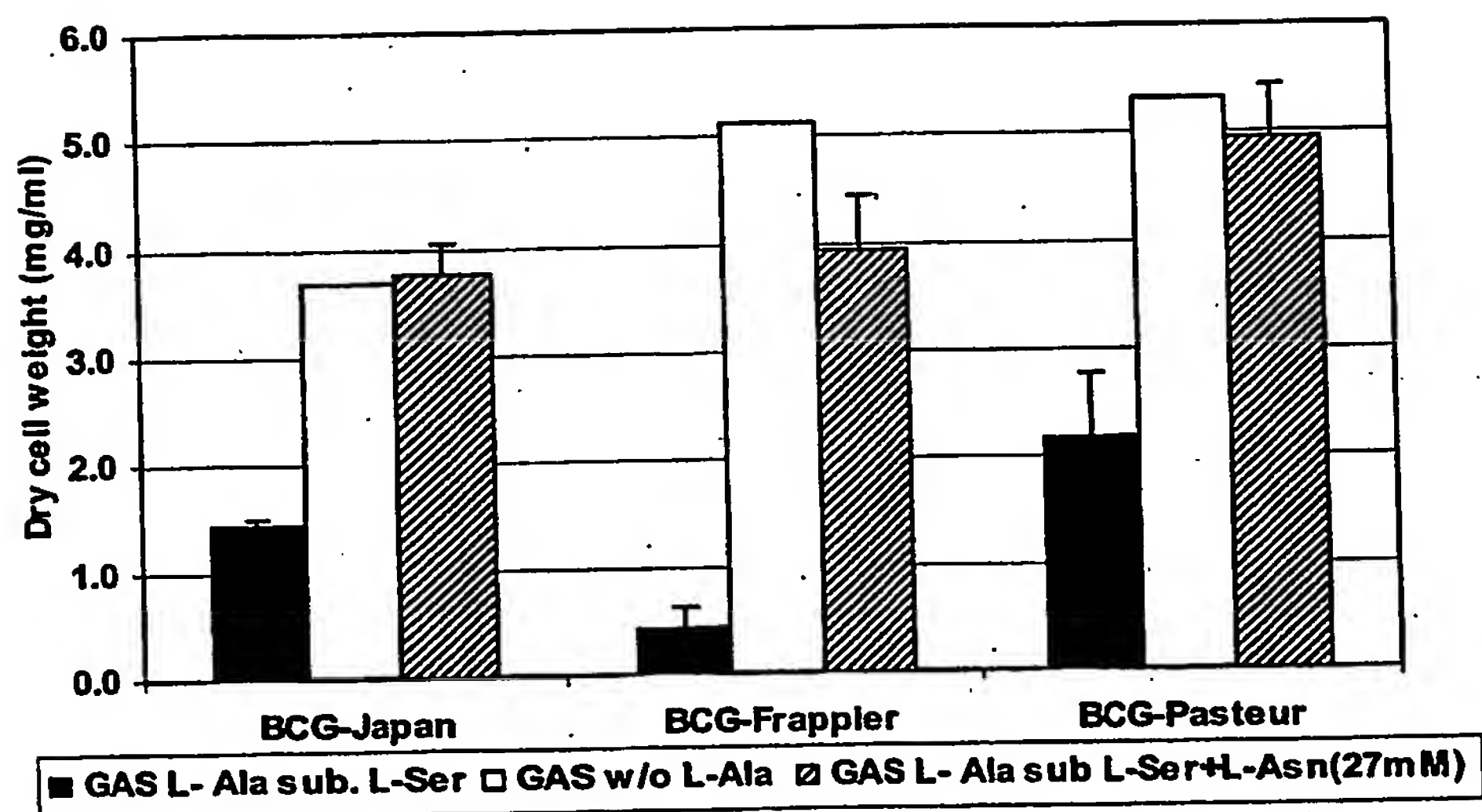
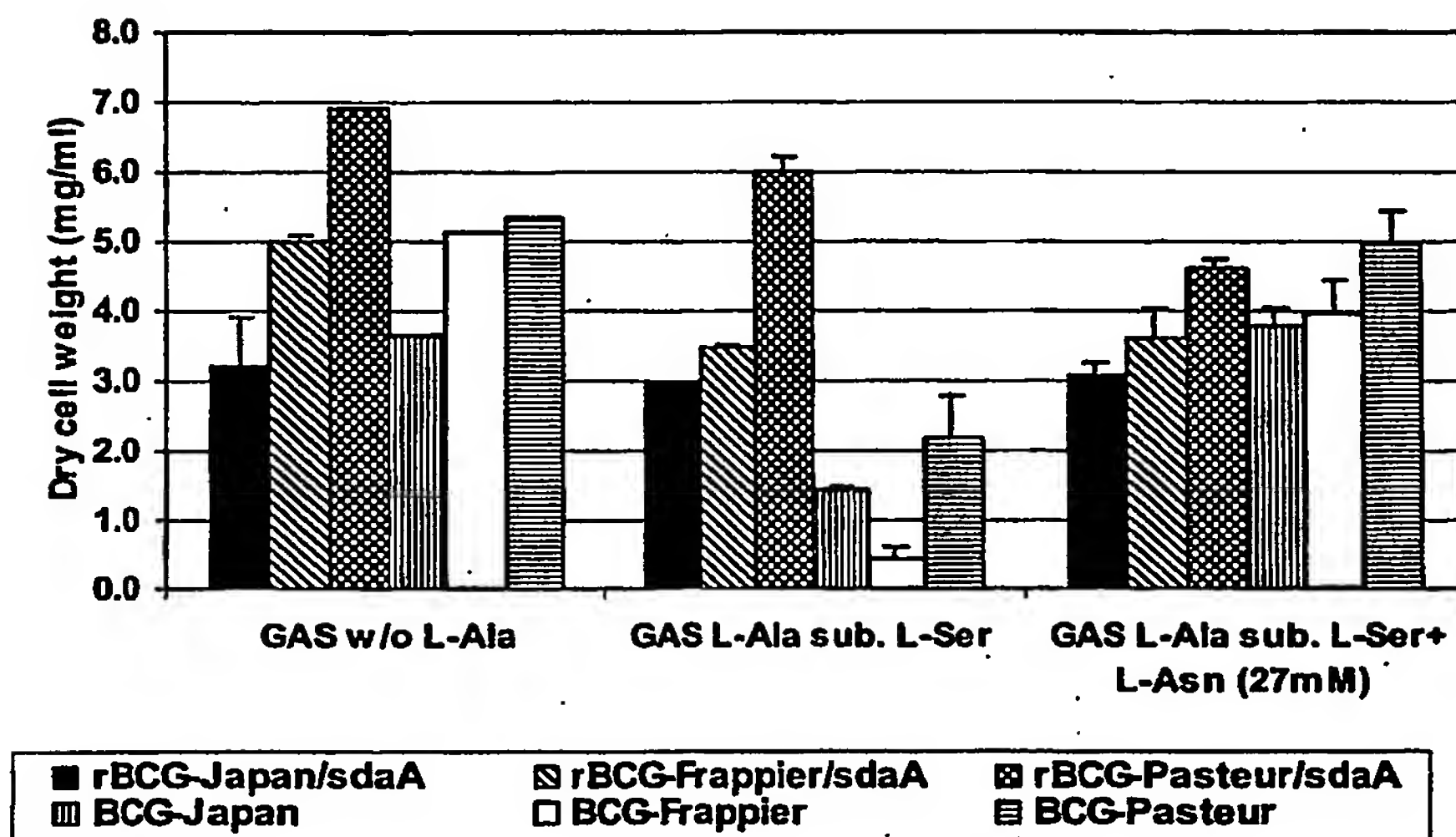


Fig. 6

**Fig. 7**

**Fig. 8**

A

M.tb ATG CGC GTC GGT ATT CCG ACC GAG ACC AAA AAC AAC GAA TTC CGG GTG GCC ATC
M.bovis ATG CGC GTC GGT ATT CCG ACC GAG ACC AAA AAC AAC GAA TTC CGG GTG GCC ATC

M.tb ACC CCG GCC GGC GTC GCG GAA CTA ACC CGT CGT GGC CAT GAG GTG CTC ATC CAG
M.bovis ACC CCG GCC GGC GTC GCG GAA CTA ACC CGT CGT GGC CAT GAG GTG CTC ATC CAG

M.tb GCA GGT GCC GGA GAG GGC TCG GCT ATC ACC GAC GCG GAT TTC AAG GCG GCA GGC
M.bovis GCA GGT GCC GGA GAG GGC TCG GCT ATC ACC GAC GCG GAT TTC AAG GCG GCA GGC

M.tb GCG CAA CTG GTC GGC ACC GCC GAC CAG GTG TGG GCC GAC GCT GAT TTA TTG CTC
M.bovis GCG CAA CTG GTC GGC ACC GCC GAC CAG GTG TGG GCC GAC GCT GAT TTA TTG CTC

M.tb AAG GTC AAA GAA CCG ATA GCG GCG GAA TAC GGC CCG CTG CGA CAC GGG CAG ATC
M.bovis AAG GTC AAA GAA CCG ATA GCG GCG GAA TAC GGC CCG CTG CGA CAC GGG C*GA TCT

M.tb TTG TTC ACG TTC TTG CAT TTG GCC GCG TCA CGT GCT TGC ACC GAT GCG TTG TTG
M.bovis TGT TCA CGT TCT TGC ATT TGG CCG CGT CAC GTG CTT GCA CCG ATG CGT TGT TGG

M.tb GAT TCC GGC ACC ACG TCA ATT GCC TAC GAG ACC GTC CAG ACC GCC GAC GGC GCA
M.bovis ATT CCG GCA CCA CGT CAA TTG CCT ACG AGA CCG TCC AGA CCG CCG ACG GCG CAC

M.tb CTA CCC CTG CTT GCC CCG ATG AGC GAA GTC GCC GGT CGA CTC GCC GCC CAG GTT
M.bovis TAC CCC TGC TTG CCC CGA TGA

M.tb GGC GCT TAC CAC CTG ATG CGA ACC CAA GGG GGC CCG GGT GTG CTG ATG GGC GGG
M.tb GTG CCC GGC GTC GAA CCG GCC GAC GTC GTG GTG ATC GGC GCC GGC ACC GCC GGC

M.tb TAC AAC GCA GCC CCG ATC GCC AAC GGC ATG GGC GCG ACC GTT ACG GTT CTA GAC
M.tb ATC AAC ATC GAC AAA CTT CCG CAA CTC GAC GCC GAG TTC TGC GGC CCG ATC CAC

M.tb ACT CCG TAC TCA TCG GCC TAC GAG CTC GAG GGT GCC GTC AAA CGT GCC GAC CTG
M.tb GTG ATT GGG GCC GTC CTG GTG CCA GGC GCC AAG GCA CCC AAA TTA GTC TCG AAT

M.tb TCA CTT GTC GCG CAT ATG AAA CCA GGT GCG GTA CTG GTG GAT ATA GCC ATC GAC
M.tb CAG GGC GGC TGT TTC GAA GGC TCA CGA CCG ACC ACC TAC GAC CAC CCG ACG TTC

M.tb GCC GTG CAC GAC ACG CTG TTT TAC TGC GTG GCG AAC ATG CCC GCC TCG GTG CCG
M.tb AAG ACG TCG ACC TAC GCG CTG ACC AAC GCG ACG ATG CCG TAT GTG CTC GAG CTT

M.tb GCC GAC CAT GGC TGG CCG GCG GCG TGC CCG TCG AAT CCG GCA CTA GCC AAA GGT
M.tb CTT TCG ACG CAC GAA GGG GCG TTA CTG TCC GAA CCG GTG GCC ACC GAC CTG GGG
M.tb GTG CCG TTC ACC GAG CCC GCC AGC GTG CTG GCC TGA

B

M.tb MRVGIPETETKNEFRVAITPAGVAELTRRGHEVLIQAGAGEGSAITDADFKAAGACLVTADQVWADADLL
M.bovis MRVGIPETETKNEFRVAITPAGVAELTRRGHEVLIQAGAGEGSAITDADFKAAGACLVTADQVWADADLL

M.tb LKVKEPIAAEYGRRLRHGQILFTFLHLAASRACTDALLDSGTTSLAYETVQTADGALPLLAPMSEVAGRLAA
M.bovis LKVKEPIAAEYGRRLRHGSCSRSCINPREVLAFMRCNIPAPRQLPTRPSRPPTAEYPCLP-

M.tb QVGAYHLMRTQGGRGVLMGGVPGVEPADVVVIGAGTAGYNAARIANGMGATVTVLDINIDKLRLDAEFCG
M.tb RIHTRYSSAYELEGAIVKRALVIGAVLVPGAKAPKLVNSLVAHMKPGAVLVLDIAIDQGGCFEGSRPTTYD

M.tb HPTFAVHDTLPHYCVANMPASVPKSTYALTNATNFVLELADHGWRACRSNPALANGLSTHEGALLSERV
M.tb ATDLGVPTFEPASVLA-

Fig. 9